

In the Claims

Cancel claims 20-26 without prejudice or disclaimer of the subject matter contained therein, amend claims 1-6, 10, 12, 14, 17-18, and add new claims 27-29 as follows.

1. (Twice Amended) A substrate processing apparatus, comprising:
a substrate processing chamber for processing a substrate;
a load lock chamber;
a gas supply for supplying gas into said load lock chamber;
a chamber exhaust for exhausting said load lock chamber;
a moving mechanism provided in said load lock chamber [and] for [capable of] moving said substrate;

a local exhaust [capable of] for locally exhausting a dust generating portion of said moving mechanism; [and]

a flow rate regulator in [at least] one of said gas supply, said chamber exhaust and said local exhaust[.]; and

a controller, wherein

during movement of said substrate by said moving mechanism and exhausting of the dust generating portion of said moving mechanism by said local exhaust, said controller controls said flow rate regulator.

2. (Twice amended) A substrate processing apparatus as recited in claim 1, further comprising: [a controller; and]

a pressure detector for detecting pressure in said load lock chamber,
wherein

said flow rate regulator is provided in [at least] said gas supply, and

said controller is capable of controlling said flow rate [detector] regulator
according to a signal from said pressure detector.

3. (Twice Amended) A substrate processing apparatus as recited in claim
1, wherein said flow rate regulator is provided in [at least] said local exhaust.

4. (Twice Amended) A substrate processing apparatus as recited in claim
1, wherein said flow rate regulator is provided in [at least] said chamber exhaust.

5. (Twice Amended) A substrate processing apparatus as recited in claim
4, wherein said chamber exhaust includes an atmospheric vent line, pressure at
one end of said atmospheric pressure vent line is substantially equal to the
atmospheric pressure, and the other end of said atmospheric pressure vent line
is communicated with the inside of said load lock chamber, and

said flow rate regulator is disposed in [at least] said atmospheric pressure
vent line.

6. (Twice Amended) A substrate processing apparatus as recited in claim
3, further comprising: [a controller; and]

a pressure detector for detecting pressure in said load lock chamber,
wherein

~~B1~~ said controller is capable of controlling said flow rate regulator in
accordance with a signal from said pressure detector.

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~~D1~~ 10. (Twice Amended) A substrate processing apparatus as recited in claim
8, further comprising a second flow rate regulator and a pressure detector for
detecting pressure in said load lock chamber, wherein

~~B2~~ said gas supply and said local exhaust are respectively provided with said
flow rate regulator and said second flow rate regulator,

during movement of said substrate by said moving mechanism, an amount
of gas supplied by said gas supply into said load lock chamber is controlled [by
said flow rate regulator] to be greater than an exhaust amount from said local
exhaust by said flow rate regulator and said second flow rate regulator, and the
gas supplied by said gas supply is exhausted by said local exhaust and said
chamber exhaust.

~~B3~~ 12. (Twice Amended) A substrate processing apparatus, comprising:
a substrate processing chamber for processing a substrate;
a load lock chamber;
a gas supply for supplying gas into said load lock chamber;
a chamber exhaust for exhausting said load lock chamber;

a moving mechanism provided within said load lock chamber and capable of moving said substrate;

a local exhaust [capable of] for locally exhausting a dust generating portion of said moving mechanism; [and]

a flow rate detector for measuring an exhaust amount of said local

exhaust[.]; and

a controller, wherein

said controller which compares the exhaust amount of said local exhaust

with a predetermined exhaust amount to monitor the state of said local exhaust.

14. (Twice Amended) A substrate processing apparatus as recited in claim 12, wherein said local exhaust comprises [a flexible] exhaust pipe made of bendable material.

17. (Twice Amended) A substrate processing apparatus as recited in claim 1, wherein said gas supply means is communicated with said load lock chamber at a first region of said load lock chamber [at the side of region] in which said substrate moves, and said chamber exhaust is communicated with said load lock chamber at a second region of said load lock chamber [the side of region] in which said moving mechanism is provided.

18. (Twice Amended) A substrate processing apparatus as recited in claim 17, further comprising a partition plate provided in said load lock chamber for

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partitioning said load lock chamber into the first region in which said substrate is moved and the second region in which said moving mechanism is positioned, and a slit provided in said partition plate, wherein

gas supplied by said gas supply into the region in which said substrate is moved is made to flow into the region in which said moving mechanism is positioned.

Add new claims 27-29 as follows.

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--27. A substrate processing apparatus as recited in claim 1, further comprising a cover for covering said dust generating portion of said moving mechanism, wherein

said cover has an opening through which a space covered with said cover communicates with the inside of said load lock chamber, and

said local exhaust communicates with said space covered with said cover and said gas supply and said chamber exhaust do not communicate with said space covered with said cover.

28. A substrate processing apparatus, comprising:

a substrate processing chamber for processing a substrate;

a load lock chamber;

a gas supply for supplying gas into said load lock chamber;

a chamber exhaust for exhausting said load lock chamber;

a moving mechanism provided in said load lock chamber and capable of moving said substrate;

a local exhaust capable of locally exhausting a dust generating portion of said moving mechanism;

a flow rate regulator in one of said gas supply, said chamber exhaust and said local exhaust;

a controller; and

a pressure detector for detecting pressure in said load lock chamber,

wherein

while locally exhausting said dust generating portion, the inside pressure of the load lock chamber is kept greater than a pressure of said exhaust line.

29. A substrate processing apparatus, as recited in claim 28, wherein said inside pressure of the load lock chamber is kept greater than the atmospheric pressure.--

Remarks

Reconsideration and allowance of the subject application are respectfully requested. Claims 1-19 and 27-29 are now pending, claims 1, 12, 15, and 28 being independent. In this amendment, applicant has amended claims 1-6, 10, 12, 14, 17 and 18, cancelled claims 20-26, and added new claims 27-29. Applicant has also made minor amendments to the specification.

In response to the Examiner's indication on page 2 of the Office Action that the original title of the invention is not sufficiently descriptive, applicant has